Litmus Lactose Agar

M114

Intended Use:

Recommended for differentiation of lactose fermenting and lactose non fermenting microorganisms.

Composition**

Ingredients	Gms / Litre
HM peptone#	5.000
HM peptone B $	3.000
Lactose	10.000
Litmus	1.000
Agar	10.000
Final pH (at 25°C)	7.0±0.2

**Formula adjusted, standardized to suit performance parameters
Equivalent to Meat peptone
$ Equivalent to Beef extract

Directions

Suspend 29 grams in 1000 ml purified / distilled water. Heat to boiling to dissolve the medium completely. Sterilize by autoclaving at 15 lbs pressure (121°C) for 15 minutes. Cool to 45-50°C. Mix well and pour into sterile Petri plates.

Principle And Interpretation

Numerous plating media are in use today for the differentiation of lactose-fermenters and lactose non-fermenters. Some of these are selective, whereas others are differential. Some lactose fermenting, gram-negative enteric bacteria can tolerate the inhibitory substances present in the media. These bacteria can be recognized readily by their appearance on selective plates. Litmus Lactose Agar is formulated by Wurtz (1) for the differentiation of lactose fermenting and lactose non-fermenting bacteria.

HM peptone and HM peptone B in the medium provide nitrogenous nutrients to the organisms. Lactose is fermented by lactose fermenting bacteria with acid production. Litmus is the pH indicator, which turns red at acidic pH. Colonies of lactose fermenting bacteria are surrounded by a red zone, which distinguishes them from colonies of other organisms that either do not change the surrounding medium or change it to blue due to production of ammonia. Inoculate culture from primary fermentation tubes showing gas either by streaking directly or by pour plate method of serially diluted culture (2).

Type of specimen

Pure isolates

Specimen Collection and Handling

For food and dairy samples, follow appropriate techniques for sample collection and processing as per guidelines (1,2,8).
For water samples, follow appropriate techniques for sample collection, processing as per guidelines and local standards.(3)
After use, contaminated materials must be sterilized by autoclaving before discarding.

Warning and Precautions :

Read the label before opening the container. Wear protective gloves/protective clothing/eye protection/ face protection. Follow good microbiological lab practices while handling specimens and culture. Standard precautions as per established guidelines should be followed while handling specimens. Safety guidelines may be referred in individual safety data sheets.

Limitations :

Inoculate culture from primary fermentation tubes showing gas either by streaking directly or by pour plate method of serially diluted culture (2).

Disclaimer :

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